

*Applicant: Phillips et al.  
Application Serial No. 09/735,363  
Amendment and Response to Final Office Action dated June 3, 2003  
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**Amendments to the Claims:**

This listing of the claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claim 1. (Currently amended) A composition, comprising a 2 to 20 base 3'-OH, 5'-OH synthetic phosphodiester nucleotide sequence selected from the group consisting of  $(G_xT_y)_n$ ,  $(T_yG_x)_n$ ,  $a(G_xT_y)_n$ ,  $a(T_yG_x)_n$ ,  $(G_xT_y)_nb$ ,  $(T_yG_x)_nb$ ,  $a(G_xT_y)_nb$ , and  $a(T_yG_x)_nb$ , wherein x and y ~~is an~~ are each an integer between 1 and 7, n is an integer between 1 and 12, a and b are one or more As, Cs, Gs or Ts, and a pharmaceutically acceptable carrier, wherein the composition is useful for inducing a response in an animal having cancer when administered in an effective amount to the animal having cancer.

Claim 2. (Previously amended) The composition of Claim 1, wherein the sequence is between 2 and 15 bases.

Claim 3. (Previously amended) The composition of Claim 2, wherein the sequence is between 2 and 10 bases.

Claim 4. (Previously amended) The composition of Claim 3, wherein the sequence is between 2 and 7 bases.

Claim 5. (Previously amended) The composition of Claim 1, further comprising a chemotherapeutic agent.

Claim 6. (Previously cancelled)

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Claim 7. (Currently amended) The composition of Claim 1, wherein the phosphodiester nucleotide sequence is selected from the group consisting of SEQ ID NOs: 7-to 18, 23-to 47, 50-to 66, and 81-to 83.

Claim 8. (Currently amended) The composition of Claim 1, wherein the phosphodiester nucleotide sequence is selected from the group consisting of SEQ ID NOs: 7-to 10, 22-to 65, 70-to 75, 79 and 80.

Claim 9. (Previously cancelled)

Claim 10. (Previously amended) The composition of Claim 5, wherein the chemotherapeutic agent is selected from the group consisting of antimetabolites, alkylating agents and hormone antagonists.

Claims 11-20. (Cancelled)

Claim 21. (Previously cancelled)

Claims 22-28. (Cancelled)

Claims 29-41. (Previously cancelled)

Claims 42-45. (Cancelled)

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Claim 46. (New) A composition comprising a 2 to 7 base 3'-OH, 5'-OH synthetic phosphodiester nucleotide sequence selected from the group consisting of  $(G_xT_y)_n$ ,  $(T_yG_x)_n$ ,  $a(G_xT_y)_n$ ,  $a(T_yG_x)_n$ ,  $(G_xT_y)_nb$ ,  $(T_yG_x)_nb$ ,  $a(G_xT_y)_nb$ , and  $a(T_yG_x)_nb$ , wherein x and y are each an integer between 1 and 6, n is an integer between 1 and 3, a and b are one or more As, Cs, Gs or Ts, provided bases in the sequence are between 2 and 7 in total, and a pharmaceutically acceptable carrier, wherein the composition is useful for inducing a response in an animal having cancer when administered in an effective amount to the animal having cancer.

Claim 47. (New) A composition comprising a 6 base 3'-OH, 5'-OH synthetic phosphodiester nucleotide sequence selected from the group consisting of  $(G_xT_y)_n$ ,  $(T_yG_x)_n$ ,  $a(G_xT_y)_n$ ,  $a(T_yG_x)_n$ ,  $(G_xT_y)_nb$ ,  $(T_yG_x)_nb$ ,  $a(G_xT_y)_nb$ , and  $a(T_yG_x)_nb$ , wherein x and y are each an integer between 1 and 5, n is an integer between 1 and 3, a and b are one or more As, Cs, Gs or Ts, provided bases in the sequence are 6 in total, and a pharmaceutically acceptable carrier, wherein the composition is useful for inducing a response in an animal having cancer when administered in an effective amount to the animal having cancer.

Claim 48. (New) The composition of Claim 46, wherein the phosphodiester nucleotide sequence is selected from the group consisting of SEQ ID Nos: 7 to 10, 23 to 65, 79, and 80.

Claim 49. (New) The composition of Claim 47, wherein the phosphodiester nucleotide sequence is selected from the group consisting of SEQ ID Nos: 9, 10, 23 to 49, and 79.

Claim 50. (New) The composition of Claim 46, further comprising a chemotherapeutic agent.

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Claim 51. (New) The composition of Claim 47, further comprising a chemotherapeutic agent.

Claim 52. (New) The composition of Claim 48, further comprising a chemotherapeutic agent.

Claim 53. (New) The composition of Claim 49, further comprising a chemotherapeutic agent.

Claim 54. (New) The composition of Claim 50, wherein the chemotherapeutic agent is selected from the group consisting of antimetabolites, alkylating agents and hormone antagonists.

Claim 55. (New) The composition of Claim 51, wherein the chemotherapeutic agent is selected from the group consisting of antimetabolites, alkylating agents and hormone antagonists.

Claim 56. (New) The composition of Claim 52, wherein the chemotherapeutic agent is selected from the group consisting of antimetabolites, alkylating agents and hormone antagonists.

Claim 57. (New) The composition of Claim 53, wherein the chemotherapeutic agent is selected from the group consisting of antimetabolites, alkylating agents and hormone antagonists.